

Algebra 1-2
Chapter 2
Worksheet 2.5

Name:

Per:

Date:

1. Solve the interest formula, $I = Prt$ for r .

$$r = \frac{I}{Pt}$$

2. Solve the volume formula, $V = lwh$ for w .

$$w = \frac{V}{lh}$$

3. Solve the circumference formula, $C = 2\pi r$ for r .

$$r = \frac{C}{2\pi}$$

4. Solve the distance formula, $D = rt$ for t .

$$t = \frac{D}{r}$$

5. Solve the density formula, $D = \frac{m}{v}$ for v .

$$v = \frac{m}{D}$$

6. Solve $E = mc^2$ for m .

$$m = \frac{E}{c^2}$$

7. Solve the average speed formula, $A = \frac{d}{t}$ for t .

$$t = \frac{d}{A}$$

8. Solve the perimeter formula, $P = 2L + 2W$ for W .

$$W = \frac{P - 2L}{2}$$

$$\text{or } W = \frac{P}{2} - L$$

9. Solve the formula for time, $T = \frac{d}{r}$ for d.

$$d = Tr$$

10. Solve the area of a triangle formula, $A = \frac{1}{2}bh$ for b.

$$b = \frac{2A}{h}$$

11. Solve the volume of a cone formula, $V = \frac{1}{3}\pi r^2 h$ for r^2 .

$$\rightarrow r^2 = \frac{3V}{\pi h}$$

$$V_{\text{cone}} = \frac{1}{3}\pi r^2 h \rightarrow r^2 = \frac{3V}{\pi h}$$

In the following equations, solve for y.

12. $5x - 3y = 2$

$$\begin{array}{r} +3y \quad +3y \\ 5x = 3y + 2 \\ -2 \quad -2 \\ \hline 5x - 2 = 3y \end{array}$$

$$y = \frac{5}{3}x - \frac{2}{3}$$

13. $6y = 9x^2 + x + 1$

$$\frac{6y}{6} = \frac{9x^2}{6} + \frac{x}{6} + \frac{1}{6}$$

$$y = \frac{3}{2}x^2 + \frac{x}{6} + \frac{1}{6}$$

14. $\left(\frac{1}{2}y\right)(6x+4) = 2$

$$y = 12x + 8$$

15. $3y + 4 = 6x$

$$\begin{array}{r} -4 \quad -4 \\ 3y = 6x - 4 \\ \hline \frac{3y}{3} = \frac{6x - 4}{3} \end{array}$$

$$y = 2x - \frac{4}{3}$$

16. $-2y - 4x = -2$

$$\begin{array}{r} +2y \\ -4x = -2 + 2y \\ +2 \quad +2 \\ \hline -4x + 2 = 2y \\ \frac{-4x + 2}{2} = \frac{2y}{2} \end{array}$$

$$y = -2x + 1$$